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New York State Department of Environmental Conservation
Division of Fish, Wildlife, and Marine Resources
Wildlife Pathology Unit
108 Game Farm Road, Delmar, NY 12054



John P. Cahill
Commissioner

Personal privacy information

April 8, 1998

[REDACTED]
Basom, NY 14013

RE: Great Horned Owl #97-28-18

Dear [REDACTED]:

The following summarizes the great horned owl case you submitted.

History: This dead great horned owl found dead in your backyard at [REDACTED] Basom (South Alabama), New York in Genesee County on April 27, 1997. The frozen owl arrived at the Wildlife Pathology Unit on July 8, 1997.

Findings: The owl was an adult, male, weighing 810 grams. The owl was thin and had no visible fat deposits. The owl had extensive intramusculature and intermusculature hemorrhage in the sternal and thigh musculature. This was made more difficult to interpret by the freezing and thawing that ruptured red blood cells resulting diffusion of bloody fluid through the areas of hemorrhage in the musculature.

The gizzard was empty as was the rest of the alimentary canal. No signs of traumatic injuries, infectious, or parasitic diseases were found to account for the mortality.

The brain, liver, and a liver were taken and frozen for possible use in toxicological studies. A chlorinated hydrocarbon screen was ordered on the brain, and an antineoplastic screen was ordered on the liver.

Toxicology (See attached report from the Department of Agriculture, Bureau of Animal Disease Laboratory and the University of Wisconsin): A number of chlorinated hydrocarbon compounds were detected, but they are all well below the lethal level. Most notable was 39.6 ppm of the DDT metabolite DDE found in the brain. The liver contained 0.09 ppm of the anticoagulant rodenticide Brodifacoum.

Diagnosis: Intoxication with Brodifacoum.

Comments: I suspect that this bird was debilitated by the rodenticide for some days and was unable to hunt for food and lost weight. This bird died during the stressing time period of raising young, and prey containing Brodifacoum brought to the nestling owlets may have caused morbidity and mortality in them as well.


Had any anticoagulant rodenticides been used in your area? The owl was secondarily poisoned - most likely by eating animals such as rats, mice, and squirrels containing the rodenticide.

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If other unusual wildlife mortalities occur, please contact the local Environmental Conservation Officers or the regional DEC office so that the carcasses can be sent to me for examination.

Sincerely,



Ward B. Stone
New York State Wildlife Pathologist

Attachments

WBS:rd

cc: C. Brassard (USEPA)
K. Converse (NWHRL)
D. O'Dell
Toxicant Case Binder



NECROPSY
FILE

Bureau of Animal Disease Laboratory

ANIMAL DISEASE LABORATORY
9732 SHATTUC ROAD
CENTRALIA, ILLINOIS 62801

TOXICOLOGY DEPARTMENT REPORT

VETERINARIAN

OWNER

NEW YORK WILDLIFE
108 GAME FARM RD
DELMAR NY 12054

NEW YORK WILDLIFE 98-28-12

ACCESSION
NUMBER: 9800010741

DATE
REPORTED: 04/01/1998

DATE
RECEIVED: 03/24/1998

SPECIMEN
RECEIVED: GREAT HORNED OWL LIVER 97-28-18
TEST
REQUESTED: ANTICOAGULANTS
RESULTS:

SPECIES: AV-OTHER

BRODIFACOUM - 0.09 PPM

OTHER ANTICOAGULANTS - NONE DETECTED

THE FOLLOWING TOXINS ARE INCLUDED IN THE ANTICOAGULANT SCREEN

Fumarin	Valone
Racumin	Chlorambenone
Warfarin	Bromacalone
Coumachlor	4-OH Warfarin
Difenacoum	6-OH Warfarin
Brodifacoum	7-OH Warfarin
Diphacinone	8-OH Warfarin
Pindone	

CHEMIST

APPROVED

LABORATORY
SUPERVISOR J. D. REYNOLDS

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ANALYSIS DATA SHEET

Client Sample ID : 97-28-18: Great Horned Owl 1/2 Brain
 Laboratory Sample ID : 973205-012
 Laboratory Name : En Chem, Inc.
 Client : NYSDEC
 Extraction : Soxhlet
 Matrix : Tissue
 Date Received : 9/4/97
 Date Extracted/Prepared : 9/8/97
 Date Analyzed : 9/13/97
 Extraction Weight (kg) : 0.00216
 Effective Final Volume (mL) : 10.0
 Lipid (%) : 10.42
 % Moisture : 0.00
 Injection Volume (uL) : 2.0

CAS Number	Compound	Pesticide Fraction Results ug/kg	PCB Fraction Results ug/kg	Pesticide Dilution Factor	PCB Dilution Factor
319-84-8	Alphe-BHC	93 U		1	
58-89-3	Gamma-BHC	93 U		1	
76-44-8	Heptachlor		93 U		1
959-98-8	Endosulfan I	93 U		1	
60-57-1	Dieldrin	200 ug/kg		1	
72-20-8	Endrin	93 U		1	
72-54-8	4,4'-DDD	93 U		1	
50-29-3	4,4'-DDT	93 U	93 U	1	1
72-43-5	Methoxychlor	93 U		1	
319-85-7	Beta-BHC	93 U		1	
319-86-8	Delta-BHC	93 U		1	
309-00-2	Aldrin		93 U		1
1024-57-3	Heptachlor Epoxide	93 U		1	
5103-74-2	Gamma-chlordane	93 U		1	
5103-71-9	Alpha-chlordane	93 U		1	
72-55-9	4,4'-DDE	550 ug/kg	390 ug/kg	1	400
33213-65-9	Endosulfan II	93 U		1	
7421-93-4	Endrin Aldehyde	93 U		1	
1031-07-8	Endosulfan Sulfate	93 U		1	
53494-70-5	Endrin Ketone	93 U		1	
118-74-1	Hexachlorobenzene		93 U		1
3424-82-6	o,p'-DDE		93 U		1
53-19-0	o,p'-DDD	93 U		1	
789-02-6	o,p'-DDT	93 U	93 U	1	1
2385-85-5	Mirex		1900 U		20
1825-21-4	Pentachloroantiso		93 U		1
27304-13-8	Oxychlordane	180 ug/kg		1	
39765-80-5	Trans-nonachlor	93 U	93 U	1	1
5103-73-1	Cis-nonachlor	93 U		1	
8001-35-2	Toxaphene	450 U		1	
12674-11-2	Aroclor 1016		460 U		1
11104-28-2	Aroclor 1221		460 U		1
11141-16-5	Aroclor 1232		460 U		1
53469-21-9	Aroclor 1242		460 U		1
12672-29-6	Aroclor 1248		460 U		1
11097-69-1	Aroclor 1254		460 U		1
11096-82-5	Aroclor 1260		9300 U		20

Note: All results reported on a wet weight basis
 U = Less than the reporting limit